

### **REMARKS**

In view of the following discussion, none of the claims now pending in the application are unpatentable or obvious under the provisions of 35 U.S.C. §§ 112 and 103. Claims 1 and 12 are amended. Support for the amendment may be found in the Specification on at least page 7, lines 13-20. Thus, all of these claims are now in allowable form. New claim 20 recites features previously found in claim 16. Thus, no new matter is added.

The Assignee's representative thanks the Examiner for taking time out of his busy schedule to speak with the Assignee's representative, Chin B. Kim, Reg. No. 54,220, on February 28, 2011. Although no agreement was reached, possible amendments were discussed that could help advance prosecution. The Examiner is encouraged to contact the Assignee's representative should a further discussion be helpful in clarifying any outstanding issues.

#### **I. SUBSTANCE OF INTERVIEW OF FEBRUARY 28, 2011**

In response to the Interview Summary mailed on March 4, 2011 regarding the interview held on February 28, 2011, the following statements regarding the substance of the interview are submitted. This statement is being submitted in order to comply with the instructions of the Interview Summary.

- A) No exhibits or demonstrations were conducted.
- B) Claim 1 was discussed.
- C) The Hardy reference was discussed.
- D) The reference was discussed along with possible amendments.
- E) The Examiner's Interview Summary accurately describes the substance of the interview.
- F) No other pertinent matters were discussed.
- G) No agreement was reached.

#### **II. REJECTION OF CLAIMS 1-7 AND 12-19 UNDER 35 U.S.C. § 112**

The Examiner rejected claims 1-7 and 12-19 under 35 U.S.C. § 112,

second paragraph, as allegedly being indefinite. Responsive to the Examiner, claims 1 and 12 are amended to remove the means plus function limitations. As a result, the rejection under 35 U.S.C. § 112, second paragraph, no longer applies. As such, the rejection should be withdrawn.

### **III. REJECTION OF CLAIMS 1, 2, 4-7, 12-13 AND 15-19 UNDER 35 U.S.C. § 102**

The Examiner rejected claims 1, 2, 4-7, 12-13 and 15-19 in the Office Action under 35 U.S.C. §102 as being anticipated by Hardy (U.S. Patent No. 7,099,282, issued August 29, 2006, herein referred to as "Hardy"). The rejection is respectfully traversed.

Hardy discloses determining the effects of new types of impairments on perceived quality of voice service. Empirically derived models are used to relate user perception to objectively measurable characteristics, under a criterion of nearly perfect co-variance between predicted MOS values and the variations in the values of the objectively measurable characteristics. (See Hardy, Abstract).

The Examiner's attention is directed to the fact that Hardy fails to describe or suggest a system or server for making quality measurements in a network comprising a server configured to determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value and charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures, as positively claimed. Specifically, independent claims 1 and 12 positively recite:

1. A system for making quality measurements in a network having a plurality of routers for routing traffic through the network, the system comprising:  
a server, wherein the server is configured to:

take measurements on each path of all paths within the network, wherein the each path is between a pair of routers from the plurality of routers;

determine paths of the all paths within the network that have data related to the measurements that falls below a target value;

determine a particular router of the plurality of routers that is associated with the paths that have data related to the measurements that falls below the target value;

determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value; and

charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures and tracking a number of degradations for each one of the plurality of routers in the network over a period of time. (Emphasis added).

12. A server for making quality measurements in a network, the server configured to:

take measurements on each path of all paths within the network, wherein the each path is between a pair of routers from the plurality of routers;

determine paths of the all paths within the network that have data related to the measurements that falls below a target value;

determine a particular router of the plurality of routers that is associated with the paths that have data related to the measurements that falls below the target value;

determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value; and

charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures and tracking a number of degradations for each one of the plurality of routers in the network over a period of time. (Emphasis added).

In one embodiment of the present disclosure, a system and server are for making quality measurements in a network comprising a server configured to determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target

value and charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures. For example, measurements for data for paths within the network may be taken such as, for example, R-Factor. When the measured data falls below a target value, the routers that are associated with the failed path may be identified. It is determined if multiple failed paths are associated with a common router. To avoid double counting of a single failure event, only a single degradation is charged against a particular router even though the particular router may be responsible for multiple path failures. (See e.g., Specification, p. 7, ll. 13-20).

Hardy fails to anticipate independent claims 1 and 12 because Hardy fails to describe or suggest a system or server for making quality measurements in a network comprising a server configured to determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value and charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures. Hardy in general is directed to evaluating the quality of packet-switched voice signals. (See Hardy, col. 1, ll. 26-28). In other words, Hardy is not concerned with identifying and tracking which routers in the network are not performing, but rather a quality of service provided by multiple communication services. (See Hardy, col. 4, ll. 43-47).

Moreover, the Examiner generally refers to Hardy on column 8, line 50 to column 10, line 35 as allegedly disclosing the above limitation. However, the sections of Hardy cited by the Examiner are completely silent with respect to the above feature.

For example, Hardy simply discloses that various measurements related

to voice quality are taken for a call. (See Hardy, col. 8, l. 50 – col. 10, l. 35). However, Hardy is completely silent with respect to using any target values to trigger a tracking process to determine how many failure events are associated with routers on a failed path. At best, Hardy discloses that detection circuitry for obtaining these measurements may be placed in a router. (See Hardy, col. 17, ll. 14-19). Moreover, Hardy fails to disclose that any router may be responsible for multiple path failures. As a result, even if the router with the detection circuitry collects various data, Hardy fails to describe or suggest that any particular router is identified as being responsible for multiple path failures due to data falling below a target value and trying to avoid double counting of a single event failure for a single router.

As noted above, one objective of the present claims is to prevent double counting a router for the multiple path failures. As a result, even though the router may be responsible for multiple path failures, only a single degradation is charged against that particular router. In contrast, Hardy is completely silent with respect to charging any router with any type of degradation or tracking a similar statistic with respect to the routers. Moreover, Hardy is completely silent with respect to trying to avoid double counting a router for multiple failures. Thus, Hardy fails to anticipate independent claims 1 and 12.

Furthermore, dependent claims 2, 4-7, 13 and 15-19 depend from independent claims 1 and 12, respectively, and recite additional limitations. For the same reasons discussed above, these dependent claims are also not anticipated by Hardy and are allowable. As such, the rejection should be withdrawn.

#### **IV. REJECTION OF CLAIMS 3, 8-11 AND 14 UNDER 35 U.S.C § 103**

##### **A. Claims 3 and 14**

The Examiner rejected claims 3 and 14 in the Office Action under 35 U.S.C. § 103 as being unpatentable over Hardy in view of Dent (U.S. Patent No. 5,631,898, issued on May 20, 1997, hereinafter referred to as “Dent”). The rejection is respectfully traversed.

The disclosure of Hardy is discussed above. Dent discloses a cellular and satellite communications system with improved frequency re-use. (See Dent, Abstract).

The Examiner's attention is directed to the fact that Hardy and Dent, alone or in any permissible combination, fail to disclose the novel system and server are for making quality measurements in a network comprising a server configured to determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value and charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures, as positively claimed by independent claims 1 and 12. (See *supra*). As discussed above, Hardy simply does not describe or suggest a system and server are for making quality measurements in a network comprising a server configured to determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value and charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures.

Moreover, Dent does not bridge the substantial gap left by Hardy because Dent also fails to describe or suggest a system and server are for making quality measurements in a network comprising a server configured to determine if the particular router is a connection point for two or more of the paths that have data related to the measurements that falls below the target value and charge, after it is determined that the particular router is the connection point for two or more of the paths that have data related to the measurements that falls below the target value, a single degradation against the particular router of the plurality of routers even though the particular router is responsible for multiple path failures. Thus,

the combination of Hardy and Dent fails to render obvious independent claims 1 and 12.

Moreover, dependent claims 3 and 14 depend from independent claims 1 and 12, respectively, and recite additional limitations. As such, and for the exact same reason set forth above with regard to the independent claims 1 and 12 being patentable over Hardy and Dent, claims 3 and 14 are also patentable over Hardy and Dent. As such, rejection should be withdrawn.

B. Claims 8-11

The Examiner rejected claims 8-11 in the Office Action under 35 U.S.C. §103 as being unpatentable over Hardy and Dent and in further view of Vogel (U.S. Patent No. 6,785,292, issued on August 31, 2004, hereinafter referred to as "Vogel"). The rejection is respectfully traversed.

The disclosures of Hardy and Dent are discussed above. Vogel discloses a method for detecting radio frequency impairments in a data over-cable system. (See Vogel, Abstract).

The Examiner's attention is directed to the fact that Hardy, Dent and Vogel, alone or in any permissible combination, fails to describe or suggest a method for making quality measurements in a network comprising determining if an overlap exists between the start time and the end time for multiple paths connecting to a particular router and charging the particular router connected to the multiple paths with one degradation if the overlap exists, as positively claimed. Specifically, independent claim 8 positively recites:

8. A method of making quality measurements in a network, the method comprising:
  - monitoring an R-Factor for each path of all paths within the network, wherein the each path is between a pair of routers;
  - tracking a path that exhibits the R-Factor below a target value;
  - tracking a start time indicating when the R-Factor of the path falls below the target value;
  - tracking an end time indicating when the R-Factor of the path rises above the target value;

determining if an overlap exists between the start time and the end time for multiple paths connecting to a particular router;  
charging the particular router connected to the multiple paths with one degradation if the overlap exists;  
charging the particular router with each degradation connected to the multiple paths if the overlap does not exist; and  
tracking a number of degradations for each router of all routers in the network over a period of time. (Emphasis added).

In one embodiment of the present disclosure, a method for making quality measurements in a network comprising determining if an overlap exists between the start time and the end time for multiple paths connecting to a particular router and charging the particular router connected to the multiple paths with one degradation if the overlap exists. For example, measurements for data for paths within the network may be taken such as, for example, R-Factor. When the measured data falls below a target value, the routers that are associated with the failed path may be identified. It is determined if multiple failed paths are associated with a common router. To avoid double counting of a single failure event, only a single degradation is charged against a particular router even though the particular router may be responsible for multiple path failures. (See e.g., Specification, p. 7, ll. 13-20).

The alleged combination (as taught by Hardy) fails to render obvious independent claim 8 because the alleged combination fails to describe or suggest a method for making quality measurements in a network comprising determining if an overlap exists between the start time and the end time for multiple paths connecting to a particular router and charging the particular router connected to the multiple paths with one degradation if the overlap exists. Hardy in general is directed to evaluating the quality of packet-switched voice signals. (See Hardy, col. 1, ll. 26-28). In other words, Hardy is not concerned with identifying and tracking which routers in the network are not performing, but rather a quality of service provided by multiple communication services. (See Hardy, col. 4, ll. 43-47).

Moreover, the Examiner generally refers to Hardy on column 8, line 50 to column 10, line 35 as allegedly disclosing the above limitation. However, the



sections of Hardy cited by the Examiner are completely silent with respect to the above limitation.

For example, Hardy simply discloses that various measurements related to voice quality are taken for a call. (See Hardy, col. 8, l. 50 – col. 10, l. 35). However, Hardy is completely silent with respect to using any target values to trigger a tracking process to determine how many failure events are associated with routers on a failed path. At best, Hardy discloses that detection circuitry for obtaining these measurements may be placed in a router. (See Hardy, col. 17, ll. 14-19). Moreover, Hardy fails to disclose that any router may be responsible for multiple path failures. As a result, even if the router with the detection circuitry collects various data, Hardy fails to describe or suggest that any particular router is identified as being responsible for multiple path failures due to data falling below a target value and trying to avoid double counting of a single event failure for a single router.

As noted above, one objective of the present claims is to prevent double counting a router for the multiple path failures. As a result, even though the router may be responsible for multiple path failures, only one degradation is charged against that particular router. In contrast, Hardy is completely silent with respect to charging any router with any type of degradation or tracking a similar statistic with respect to the routers. Moreover, Hardy is completely silent with respect to trying to avoid double counting a router for multiple failures.

Furthermore, Dent and Vogel fail to bridge the substantial gap left by Hardy. Dent only discloses a cellular and satellite communications system with improved frequency re-use. (See Dent, Abstract). Vogel only discloses a method for detecting radio frequency impairments in a data over-cable system. (See Vogel, Abstract). Thus, the combination of Hardy, Dent and Vogel fails to render obvious independent claim 8.

Furthermore, dependent claims 9-11 depend from independent claim 8 and recite additional limitations. For the same reasons discussed above, these dependent claims are also not rendered obvious by the combination of Hardy, Dent and Vogel and are allowable. As such, the rejection should be withdrawn.

**CONCLUSION**

Thus, all the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 542-2280 x130 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,

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